



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,690	03/12/2007	Eric Gwyn Avenell	7733P009	3728

7590 02/04/2010
Blakely, Sokoloff, Taylor & Zafman
12400 Wilshire Boulevard
7th Floor
Los Angeles, CA 90025

EXAMINER

WEEKS, GLORIA R

ART UNIT	PAPER NUMBER
----------	--------------

3721

MAIL DATE	DELIVERY MODE
-----------	---------------

02/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,690	Applicant(s) AVENELL, ERIC GWYN	
	Examiner GLORIA R. WEEKS	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-46 and 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-46 and 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment and remarks received on November 10, 2009.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 14, 16-18, 21, 23-27, 36, 38-46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable Norman (USPN 6,635,067) in view Selewski et al. (USPN 6,777,844) and Yoshimura et al. (USPN 7,033,144).

In reference to claims 1-4, 14, 16-18, 23-27, 36, 38-46 and 49, Norman discloses a hand tool comprising: a brushless DC motor 40 contained within a cylindrical motor housing 42 and a sealed, cylindrical body 44; a void space 84 between an internal surface of the body 44 and the motor housing 42; a fluid inlet port 16 and a fluid outlet port 18; conduits 46a, 46b releasably attached to the fluid inlet port 16 and the fluid outlet port 18; heat dissipation ducting means 120 that extends parallel to the body 44 and motor housing 42, as well as about the axis of the body 44 and the motor housing 42 (figures 3 & 4; column 5 lines 58-67); an external fluid source 130 that supplies compressed cooling fluid to fluid transport means 132, 136; rotatable power output shaft 112 connected to a cutting implement 12; a quick-release power cord assembly 24 connected to an electrical supply capable of being switched on and off (column 2 lines 62-67).

Norman does not disclose the fluid source to provide a gaseous fluid, nor does Norman disclose a controller responsive to the gaseous fluid. Selewski et al. teaches a hand tool powered by a brushless motor, wherein the motor is cooled by air flow, such that a controller turns off the motor if the pressure of air flow falls below a predetermined level. It would have been obvious to one having ordinary skill in the art to modify the motor of Norman to include air as the cooling fluid of the motor since Selewski et al. discloses such a gas is a known coolant in the art of motor housings for the purpose of effectively reducing the temperature of a motor.

The flow of coolant on the motor is responsive to the detected temperature of the motor; such that the higher the temperature, the higher the flow of coolant, the higher the pressure of the coolant. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the hand tool of Norman to include a controller associated with the temperature of the motor, since column 9 lines 7-28 of Selewski et al. states that if the cooling of the motor is insufficient, and the temperature of the motor exceeds a predetermined value, the motor is shut-off for the purpose of preventing the motor from overheating.

Nonetheless, Yoshimura et al. teaches a motor contained within a body, wherein a controller is configured to monitor the discharge pressure of a fluid provided for the purpose of cooling the motor within the body in place of monitoring the temperature of the motor (column 5 lines 3-11). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the controller of Norman to respond directly to the discharge/extracted fluid pressure, since column 5 lines 11-50 of Yoshimura et al. discloses the equivalence of monitoring fluid pressure and temperature for their use in the motor cooling art and the selection of any of

these known equivalents to control the power of a motor would be within the level of ordinary skill in the art.

Claim 21 is drawn to the use of the hand tool rather than structural limitations defining the hand tool. It has been held that recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed product from a prior art product satisfying the claimed structural limitations.

With respect to claim 43, Applicant did not properly challenge the "Official Notice" taken by the Examiner in the office action mailed on December 19, 2008. In general, a challenge, to be proper, must contain adequate information or argument so that on its face it creates a reasonable doubt regarding the circumstances justifying the "Official Notice". As Applicant failed to properly challenge the "Official Notice" during examination, the Applicant's right to challenge the Official Notice is waived. Therefore, the well known in the art statement, with respect to the formation of a hand tool from materials such as metal, plastics or composite materials, is taken to be Applicant admitted prior art.

4. Claims 5-13 and 29-37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norman (USPN 6,635,067) in view Selewski et al. (USPN 6,777,844) and Yoshimura et al. (USPN 7,033,144), and further in view of Sjostrom et al. (USPN 5,712,543).

In reference to claims 5-13 and 29-37, Norman discloses a hand tool having a brushless DC motor positioned within a motor housing and body, wherein the brushless DC motor is connected to an external electrical power source and console. Norman does not disclose what structure is associated with the power console for the purpose of controlling the motor of the hand tool. Sjostrom et al. teaches a hand tool having: a switch activation handle 100 having

Art Unit: 3721

magnetic push switches 125, 130, 135 that regulate power supplied to a motor 120 sealed within a body 110, wherein the motor 120 is connected 145 to a remote electric power source and console 215; the remote electric power source and console 215 controlling the operating speeds of the motor 120 in response to manual input, provides an emergency power disabling switch 220; and a visual display 235 that allows the level of power supplied to the motor to be monitored; and Hall Effect sensor 500 that provides diagnostic information with respect to the motor 120 to the display 235. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the hand tool of Norman to include the activation and control system of Sjostrom et al., since Sjostrom et al. suggests that such a modification allows the speed of a motor to be easily adjusted and monitor in accordance with implements driven by the motor.

Response to Arguments

5. Applicant's arguments filed November 10, 2009 have been fully considered but they are not persuasive.

6. Applicant has maintained the argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning. Thus, Examiner once again asserts that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.¹

¹ See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

7. Regarding applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.²

In this case, the primary reference, Norman, discloses a hand tool comprising a motor within a body of the hand tool, wherein a space is provided between the motor and body for the purpose of cooling the motor with a fluid. The cooling fluid of Norman is supplied from a source 130 which can include a pump for the purpose of continuously forcing fluid around the motor of the hand tool.

Similarly, the secondary reference (Selewski) teaches a hand tool comprising a motor within a body of a hand tool, wherein the motor is cooled by a gaseous fluid. Selewski is also relied upon for the disclosure of a controller configured to turn off a motor based on detected conditions of the environment of the motor.

While Selewski indeed teaches the controller responding to a sensor that monitors the temperature of a motor rather than pressure of a fluid provided to cool the motor, Yoshimura teaches a motor cooling system including a controller that that monitors conditions associated with cooling and operation of a motor. Furthermore, Yoshimura discloses the connection between the temperature of the coils of a motor and the gaseous fluid (air) discharged to cool the motor (column 3 line 63-column 4 line 12). The fan (source of fluid) of Yoshimura creates a flow of air about the motor upon powering of the motor, thereby defining a relationship between

² See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941

Art Unit: 3721

the air flow pressure about the motor, the temperature of the motor and the powering of the motor. When the motor is powered, an air pressure is established by rotation of the fan connected to the motor consequently affecting the temperature of the motor. Herein lies the connection between the three references.

8. With respect to the limitations of “a controller configured to turn off the motor **in response to determining that a detected pressure** of gaseous fluid” has fallen below a predetermined level, Applicant's claim language does not connect the determination of the pressure directly to the controller, such that the failed operations of the fluid source/pump of Norman can be determined by an indicator light/sound of the fluid source, which will inherently cause the fluid pressure to fall below a predetermined level, resulting in the motor temperature increasing. The modification of Norman in view of Selewski would then result in the controller turning off the motor of the tool. Applicant's structural limitations as claimed, with respect to the controller, is deemed to be limited to the function of turning off the motor, not a structural ability to detect or monitor the pressure of the fluid of the outlet port.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations related to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GLORIA R. WEEKS whose telephone number is (571)272-4473. The examiner can normally be reached on M-Th 8am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Other helpful telephone numbers are listed for applicant's benefit:

- Allowed Files & Publication (888) 786-0101

Art Unit: 3721

- Assignment Branch (800) 972-6382
- Certificates of Correction (703) 305-8309
- Fee Questions (571) 272-6400
- Inventor Assistance Center (800) PTO-9199
- Petitions/special Programs (571) 272-3282
- Information Help line 1-800-786-9199

/Gloria R. Weeks/
Examiner, Art Unit 3721

/Rinaldi I Rada/
Supervisory Patent Examiner, Art Unit
3721

February 4, 2010